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| APPLICATION NO.                         | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.     | CONFIRMATION NO. |
|---|-------------|----------------------|-------------------------|------------------|
| 09/849,461                              | 05/04/2001  | Kuo-Jeng Wang        | JCLA7069                | 8339             |
| 7590 02/12/2004                         |             |                      | EXAMINER                |                  |
| J.C. Patents, Inc. 4 Venture, Suite 250 |             |                      | ROSARIO-VASQUEZ, DENNIS |                  |
| Irvine, CA 92618                        |             |                      | ART UNIT                | PAPER NUMBER     |
| ŕ                                       |             |                      | 2621                    |                  |
|   |             |                      | DATE MAILED: 02/12/2004 | 3                |

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary   |   | Application   | on No.   | Applicant(s)   |  |  |
|---|---|---|--|--|--|--|
|   |   | 09/849,46   | 31   | WANG, KUO-JENG   |  |  |
|   |   | Examiner  |  | Art Unit   |  |  |
|   |   |   | osario-Vasquez   | 2621   |  |  |
| The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply  |   |   |  |  |  |  |
| THE I - External after - If the - If NC - Failu Any   | ORTENED STATUTORY PERIOD F MAILING DATE OF THIS COMMUN asions of time may be available under the provision: SIX (6) MONTHS from the mailing date of this com period for reply specified above is less than thirty (it period for reply is specified above, the maximum is re to reply within the set or extended period for reply reply received by the Office later than three months and patent term adjustment. See 37 CFR 1.704(b). | IICATION. s of 37 CFR 1.136(a). In no even munication. 30) days, a reply within the state tatutory period will apply and wi y will, by statute, cause the apply | ent, however, may a reply be timutory minimum of thirty (30) day. Il expire SIX (6) MONTHS from ication to become ABANDONE | nely filed s will be considered timely. the mailing date of this communication. O (35 U.S.C. § 133). |  |  |
| Status  |   |   |  |  |  |  |
| 1)[🛛  | Responsive to communication(s) file   | ed on <i>04 May 2001</i> .  |  |  |  |  |
| ,—  | •   | 2b)⊠ This action is n   | on-final.  |  |  |  |
| 3)□   |   |   |  |  |  |  |
| Dispositi   | on of Claims  |   |  |  |  |  |
| 5)□<br>6)⊠<br>7)□   | <ul> <li>Claim(s) 1-4 is/are pending in the application.</li> <li>4a) Of the above claim(s) is/are withdrawn from consideration.</li> <li>Claim(s) is/are allowed.</li> <li>Claim(s) 1-4 is/are rejected.</li> <li>Claim(s) is/are objected to.</li> <li>Claim(s) are subject to restriction and/or election requirement.</li> </ul>  |   |  |  |  |  |
| Applicati   | on Papers   |   |  |  |  |  |
| 10)⊠  | The specification is objected to by the drawing(s) filed on <u>04 May 200</u> .  Applicant may not request that any objected to Replacement drawing sheet(s) including the oath or declaration is objected to   | 1 is/are: a) $\square$ accepte ection to the drawing(s) by the correction is require  | e held in abeyance. See<br>ed if the drawing(s) is obj   | e 37 CFR 1.85(a).<br>ected to. See 37 CFR 1.121(d).  |  |  |
| Priority u  | ınder 35 U.S.C. § 119   |   |  |  |  |  |
| <ul> <li>12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).</li> <li>a) All b) Some * c) None of:</li> <li>1. Certified copies of the priority documents have been received.</li> <li>2. Certified copies of the priority documents have been received in Application No</li> <li>3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> <li>* See the attached detailed Office action for a list of the certified copies not received.</li> </ul> |   |   |  |  |  |  |
| 2) Notice 3) Information  | t(s) e of References Cited (PTO-892) e of Draftsperson's Patent Drawing Review ( mation Disclosure Statement(s) (PTO-1449 o r No(s)/Mail Date   |   | 4) Interview Summary Paper No(s)/Mail Da 5) Notice of Informal P 6) Other:   |  |  |  |

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#### **DETAILED ACTION**

## Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claim 1-4 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The specification is unclear as to how "the difference between the brightness value and the darkness value of each pixel." (Spec: page 4, lines 2-3). Is the light turned on to obtain the brightness value of the pixel and than turned off to obtain the darkened value? Or is the difference obtained by subtracting the brightness value of the reference area from the value of each pixel? Or is the difference obtained by subtracting the values of neighboring pixels in a local area? The specification is totally inadequate with regard to this issue. A critical feature of the invention is left to speculation.

#### Claim Objections

- 3. The following quotations of 37 CFR § 1.75(a) is the basis of objection:
  - (a) The specification must conclude with a claim particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention or discovery.

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4. Claim 1 is/are objected to under 37 CFR § 1.75(a) as failing to particularly point out and distinctly claim the subject matter which the applicant regards as his invention or discovery.

Claim 1, line 5 has the phrase "the scanned region"; however the phrase lacks an antecedent basis. A suggestion is to change "the scanned region" to "a scanned region".

### Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- 6. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Konishi et al. (US Patent 5,530,239).

Regarding claim 1, which is representative of claim 2, Konishi et al. discloses a method for determining a local (The image sensor 5 uses lines of pixels @ col. 5, lines 30-38) compensation (Using figure 6 a stabilization time is used before the document is read using a read control circuit 12) for the pixel brightness (Grey scale values represent pixel brightness of an image: using figure 6, light from the lamp 3 is converted to a digital signal or grey scale value from A\D converter 6 (col. 4, lines 25-28 and col. 5, lines 30-32), applied to a plurality of pixels of a scanned document, the pixels having nonuniform brightness values and corresponding darkness values of the lamp generated after light of a lamp tube has been projected (Using figure 6, the output of the image sensor 5 varies when the lamp 3 has not stabilized in temperature (col. 4, lines

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20-28).) onto a reference area (fig. 6, num. 2) and on the document (fig. 6, num. 1), the method comprising:

For each pixel of the scanned region, evaluating a difference ("A-B") between a brightness value ("A") and a darkness value ("B") therefor (col. 5, lines 41-45)(The values of "A or latest data" and "B or previous data" are subtracted from each other for each respective time period for a single pixel (col. 5, lines 36-45). As a result, a difference between pixel values implies that one pixel values is either lighter or darker than the previous pixel value.).;

Comparing the difference between the brightness value and the darkness value of each pixel to a predetermined level value (A comparator compares the difference value "A-B" with a reference value (col. 5, lines 50,51); and

Applying a brightness compensation only to the pixels having a difference between the brightness value and darkness value less than the predetermined level value (Using figure 6,Konishi et al. states," When the output of the subtractor 9 (i.e., the difference of the outputs of the image sensor 5 during one cycle) is smaller than the reference value, the comparator 11 outputs a read signal...to the read control circuit 12. On receipt of the read signal, the read control circuit 12 supplies a driving signal to a motor (not shown), and couples the output of the A/D converter 6 to the image processing circuit 13. Thus, the read operation of the document is started at a time when the output of the image sensor 5 becomes stable, allowing image data to be output by the image processing circuit 13 (col. 5, lines 51-62)." Additionally Konishi et al. states," Accordingly, by starting the read operation of the document only when the

change of the output of the image sensor corresponding to a specified pixel measured every predetermined time is smaller than the reference value, substantially the same level of output of the image sensor can be obtained from the beginning to the end of the read operation of the document. As a result, images with higher quality will be obtained (col. 4, lines 38-45). "

## Claim Rejections - 35 USC § 103

- 7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 8. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Konishi et al. (US Patent 5,530,239 A) and in view of Fender et al. (US Patent 4,639,586 A).

Regarding claims 3 and 4, Konishi et al. teaches a difference of pixel values as described above in claim 1, but does not teach using a ratio for a pixel difference as required for claims 3 and 4.

However, Fender et al. does teach the use of a difference of pixels using a ratio of intensities as shown in column 7 equation 3. "Imax-Imin" is the difference between brightness value (Imax) and the darkness value (Imin), and the difference is used in the numerator, while in the denominator Imax and Imin are used.

It would have been obvious at the time the invention was made to one of ordinary skill in the art to use Fender et al's equation as a modification of Konishi et al's

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difference equation because dividing by a sum normalizes the intensity values and the formual "works well for single or multiple wavelength sources and, when solved, yields the optical path difference in waves (Fender et al. @ col. 7, lines 42-47)."

#### Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Litt et al. (US Patent 5,091,963) is pertinent as teaching a method of using differences in intensity with a predetermined threshold to provide a correction (col.3, lines 4,5).

Kato (US Patent 5,214,518 A) is pertinent as teaching a method of correcting brightness using a range of brightness values (Fig. 7 shows a range of brightness values being corrected).

lishiba et al. (US Patent 5,500,745 A) is pertinent as teaching a method of comparing values (A and B) with a threshold and correcting the data from the threshold operation afterwards (fig. 2).

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dennis Rosario-Vasquez whose telephone number is 703-305-5431. The examiner can normally be reached on 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Boudreau can be reached on 703-305-4706. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dennis Rosario-Vasquez Unit 2621

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